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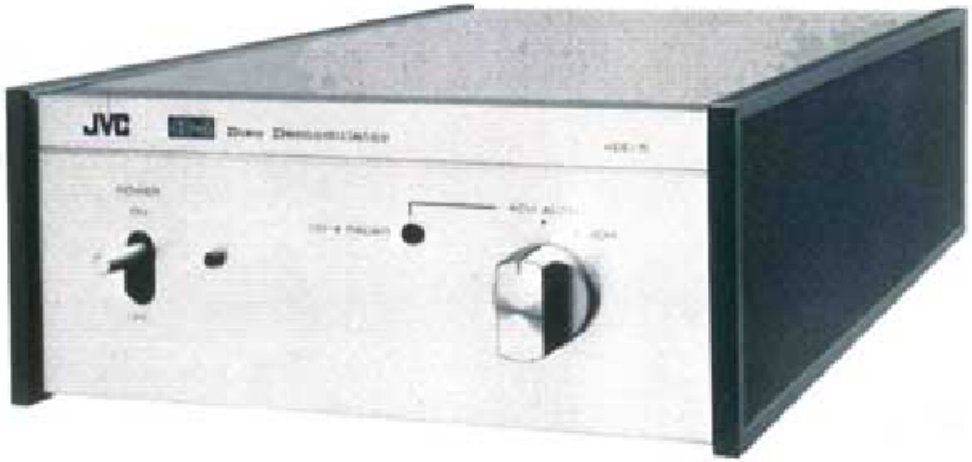
JVC

INSTRUCTION BOOK

CD-4 DISC DEMODULATOR

MODEL 4DD-5



IMPORTANT

To get the optimum performance from your 4-channel stereo system the following points should be noted:
A magnetic cartridge must be used with a frequency response extending to 45kHz. The use of a cartridge with a Shibata stylus is recommended. The stylus pressure should be less than 3.5 g. A turntable or record player with minimum arm friction should be used. Signal cords of low capacitance between the player and demodulator are provided.

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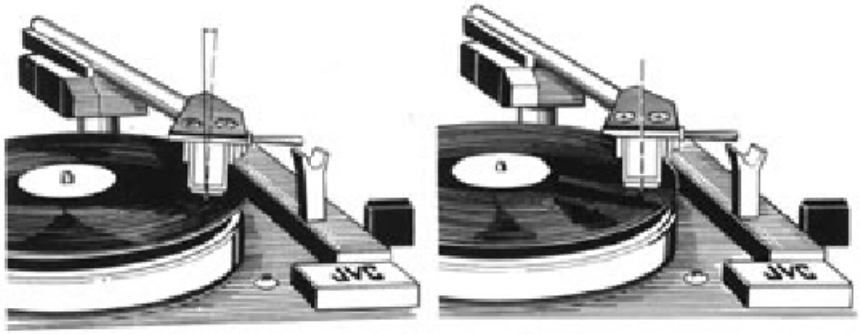
CAUTIONS

1. **CD-4 Adjust**
CD-4 adjust is to match the cartridge and stylus with the demodulator. Once it has been done it need not be done again until the cartridge or stylus is changed.
2. **Installation of Cartridge Fig. 1 (a), (b)**
If, when a cartridge is installed, it is positioned as shown in Fig. 1 (a), the tone quality will be unsatisfactory. Make sure that it is installed correctly so that it is perpendicular to the record surface. Fig. 1 (b)

Fig. 1 (a) Fig. 1 (b)



3. **TV Interference**
When a CD-4 record player system is close to a TV, interference may occur during the playing of records. If you cannot switch off your TV when playing CD-4 records, make sure that the distance between the TV and the record player is sufficient. (Normally 3 to 4 ft. is enough)
4. **Records**
   (1) CD-4 records are, as all records, sensitive to dust, and the tone quality can suffer very easily. Be sure to clean your records with a cleaner before and after playing. Do not use cleaners which contain solvent and do not wash your records with water, as this will increase the noise level.
   (2) Dust on the tip of the stylus will also increase noise. Clean the stylus with the brush provided before playing.
   (3) Even if 2-channel stereo records are played with the CD-4 cartridge, this will not reduce the service life of the stylus or record.
   (4) When a 2-channel record which contains an undesirable supersonic signal produces a blasting noise, set the Selector Switch to the 2CH position.

CONNECTING DIAGRAM

The 4DD-5 Demodulator can be connected to JVC 4-channel amplifiers and tuner-amplifiers such as 4VN-770, 4VN-990, VN-5101, 4VR-5414 and 4VR-5445 or any other discrete 4-channel equipment with 4 high level inputs.
The patch cords provided with this demodulator must be used as shown on the right.

The coding used is:

Front left	CH1
Rear left	CH2
Front right	CH3
Rear right	CH4

Patch cord	Color of tag or plug cap	4DD-5 terminals	Amplifier or player terminals
"A"	CH-1 (brown) CH-3 (orange)	4CH OUT (front)	4CH DISC or 4CH AUX (front) of 4CH amplifier
"B"	CH-2 (red) CH-4 (yellow)	4CH OUT (rear)	4CH DISC or 4CH AUX (rear) of 4CH amplifier
"C"	L (white) R (red)	PHONO IN (left) PHONO IN (right)	Player output (left) Player output (right)

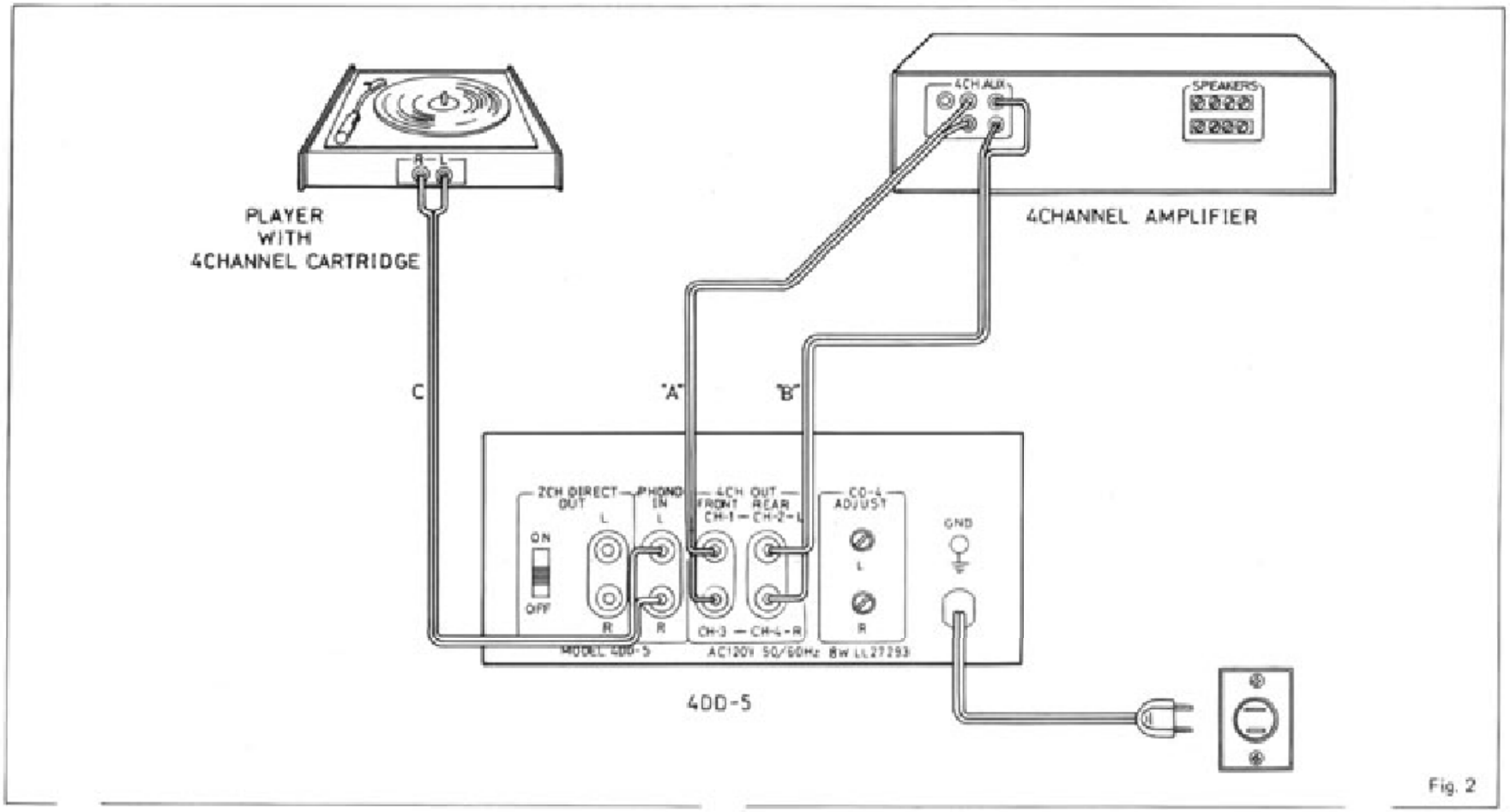


Fig. 2

FRONT PANEL CONTROLS

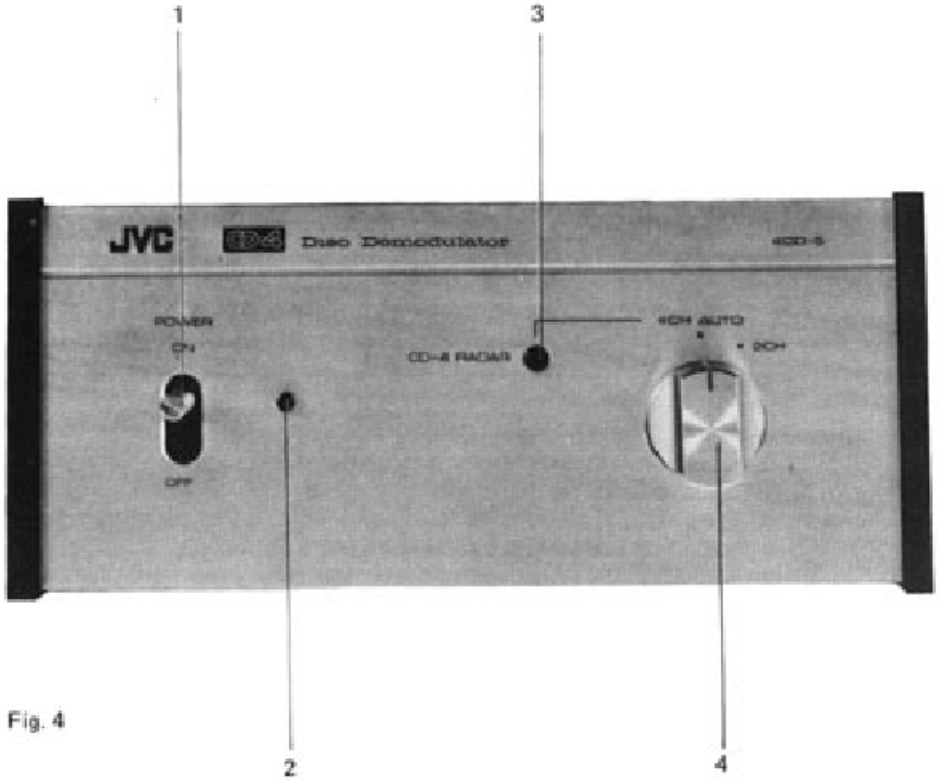


Fig. 4

1. **POWER Switch**
   Switch up to switch the 4DD-5 ON.
2. **Power Indicator**
   When the demodulator is switched ON this will glow red.
3. **CD-4 RADAR**
   When the demodulator is being used to demodulate a 4-channel signal, this light will glow red.
4. **Selector Switch**
   This selects the mode with which the demodulator will work.
   - 4CH AUTO — When it is in this position the demodulator will inspect the input signal and, if it is a CD-4 disc signal, it will demodulate it. In case of a 2-channel or matrix record stereo 2-channel sound will be played back through 4 speakers.
   - 2CH — If the Direct switch is in the OFF position the input signal will pass through the main channel of demodulator and go to 4CH OUT jacks, however, when the switch is in this position and the Direct switch is in the ON position the input signal will go directly to the 2CH DIRECT OUT jacks.

BOTTOM PLATE CONTROL

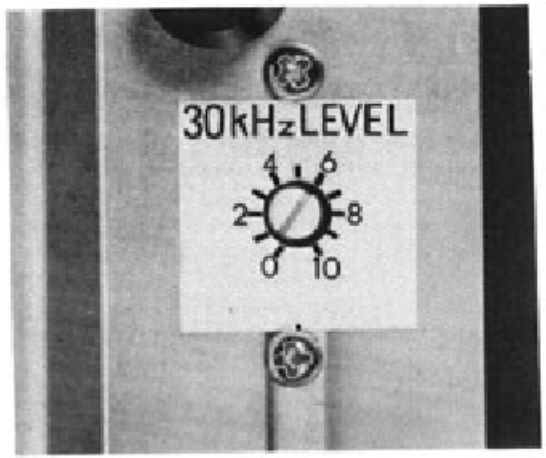


Fig. 5

30kHz Level Adjust
The 30kHz sub-channel output differs between cartridges and this screw is to adjust the level and has click positions from 0 to 10.

ADJUSTMENT

To get the best performance from your CD-4 records, follow these instructions.

Preliminary

1. Set up the system. Make sure you have correctly connected a CD-4 record player, the demodulator described in this manual, a 4-channel amplifier and four speakers.
2. Check that the selector switch of the 4-channel amplifier is in the 4CH AUX position. Turn the amplifier volume controls to low volume settings.
3. Set the 4DD-5 Demodulator Selector switch to the "4CH AUTO" position.
4. Switch the record player, the 4DD-5 and the amplifier on.
5. Put a CD-4 record on the record player and start the record player.
6. Make sure sound is coming out of each of the four speakers.

CD-4 Adjust

If this adjustment is made once it need not be made again until the cartridge or stylus is changed. These adjustments should be made while playing the CD-4 demodulator adjustment record.

1. Lower the volume of the front (CH-1, CH-3) speakers so that sound is only heard from the rear (CH-2, CH-4) speakers.
2. On the outside band of the adjustment record there is a passage of adjustment signals, first for the left channels and then for the right channels. These are a warbling note and while this passage is playing the adjustment should be made.
3. BAND 1. The adjustment of the left channel is done first. Turn the upper control of the 4DD-5 so that the volume of the rear left is as low as possible.
4. BAND 2. The adjustment of the right channel is done next, in the same way, by turning the lower control to minimize the volume of the rear right.

When these operations have been completed, the adjustment is over and the volume of the front speakers should be turned up.

Balance Adjustment

BAND 3. Listening to the announcements and short passages of warbling notes on each channel after the signals on the adjustment record adjust the volume of each speaker so that they are the same level. This completely adjusts your 4-channel stereo system. Now you can play any CD-4 record and be surrounded by the rich sound field, created by the four discrete channels.

30kHz Level Adjust

BAND 4. This has been adjusted before the demodulator left the factory and may not need further adjustment. If you are getting unstable 4-channel sound it might be because your cartridge does not match the demodulator. In this case do as follows. The 30kHz level screw is located on the bottom panel and has click positions from 0 to 10. On the inside band of the CD-4 Demodulator Adjustment Record there is a 400Hz signal. If the signal is distorted play BAND 4 on adjustment record and place 30kHz level control in 10 position. The screw should be turned counter-clockwise until a position is reached where distorted sound is not heard. Although distorted sound may still be heard, it might be acceptable in sound quality when playing CD-4 music records with the setting remaining in the 0 position.

If the sound is still unsatisfactory with CD-4 music records, the cartridge is then considered inadequate for CD-4 record reproduction.

SPECIFICATIONS

Type	:	CD-4 disc demodulator
Semi-conductors	:	6 ICs, 6 FETs, 27 transistors and 23 diodes
Frequency response	:	20Hz to 16,000Hz
Input sensitivity	:	1.5mV
Output level	:	300mV
Input impedance	:	100kΩ
Output impedance	:	5kΩ
Signal to noise ratio	:	60dB
Input jacks	:	2
Output jacks	:	4 for 4-channel 2 for 2-channel
Power supply voltage	:	AC 120V, 60Hz
Power consumption	:	8W
Dimensions	:	3-3/8"(H) x 6-7/8"(W) x 12-3/4"(D)
Weight	:	5 lbs. (excluding package)
Accessories	:	CD-4 demodulator adjustment record Signal cords x 3 pairs

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